

<b>Quality</b>	<b>13CrMo4-5</b>
<b>According to Standard</b>	<b>EN 10273 : 2000</b>
<b>Number</b>	<b>I.7335</b>



<b>Comparable Standards</b>	<b>EN</b>	<b>W.N.</b>		
	13CrMo4-5	1.7335		
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<b>Chemical Analysis</b>	<b>C %</b>	<b>Si % max</b>	<b>Mn %</b>	<b>P% max</b>
	0.08 - 0.18	0.35	0.40 - 1.00	0.03
	<b>Cr %</b>	<b>Cu max.</b>	<b>Mo %</b>	<b>Ni %</b>
	0.70 - 1.15 <sup>4)</sup>	0.3	0.40 - 0.60	-
	<b>S% max</b>	<b>Al<sup>tot</sup></b>		
	0.025	1)		
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#### **Hot Work and Heat Treatment Temperatures**

Temperature Range For Quenching			
Normalizing	Austenitizing	Tempering <sup>2)</sup>	
--	890 to 950	630 to 730	

#### **Mechanical Properties at Room Temperature**

<b>Tensile Strength</b> <b>N/mm<sup>2</sup></b>	<b>Usual delivery conditon</b>	<b>Diameter or thickness mm</b>	<b>Yield Strength R</b>	
	<b>+N</b>	<b>over</b>	<b>up to</b>	<b>N/mm<sup>2</sup> min.</b>
	+NT	16	16	300
	+NT or +QA or +QL	60	100	275
	+QL	100	150	255
<b>Elongation after fracture (L<sub>0</sub> = 5,65√S<sub>0</sub>)</b>	<b>Minimum impact energy value</b>			
	<b>A (longitudinal) % min.</b>	<b>KV (longitudinal)</b>	<b>J at temperatures in °C</b>	
450 to 600	20			
440 to 590	19	-	-	40
430 to 580				

1) The Al content of the cast shall be determined and given in the inspection document.

4) •• If resistance to pressurized hydrogen is of importance,  
a minimum percentage by mass of Cr of 0,80% should be agreed at the time of enquiry and order.